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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,248	12/09/2003	Junji Sakata	Q78868	3363
23373	7590	11/30/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			GLEITZ, RYAN M	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/730,248

Applicant(s)

SAKATA ET AL.

Examiner

Ryan Gleitz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 8 is objected to because “particles” should be --particles are--.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 7, 8, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (US 2001/0036376).

Yamazaki et al. disclose a developing roller (6) comprising a shaft as shown in figure 5. An elastic layer formed on the outer periphery of the shaft. See [0050], line 10. At least one resin outer layer is formed on the outer periphery of the elastic layer. See [0050], line 10. Fine particles are dispersed in the resin outer layer. See [0050], lines 10-17.

The resin outer layer also contains 20 parts by weight of carbon relative to 100 parts by weight of the resin, [0063], and carbon is used as an electroconductive agent, [0037], [0084]. Also, Yamazaki et al. disclose in claim 19 that the resin layer contains an electroconductive agent. See Applicant’s response, 12 Sept. 2005, p. 10.

Regarding claim 4, the thickness of the resin outer layer is in a range of 1 to 100 microns. See [0050], line 3.

Regarding claims 7 and 8, the fine particles are fine particles of a synthetic resin such as melamine resin. See [0050], lines 5-6. The fine particles inherently provide a surface roughness

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for the resin outer layer because every component of every substance in existence provides a surface roughness.

Regarding claim 13, the developing roller is in an image forming device.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Achiha et al. (JP 2002-310136).

Achiha et al. disclose a developing roller comprising a shaft, an elastic layer formed on the outer periphery of the shaft, and at least one resin outer layer formed on the outer periphery of the elastic layer. See abstract, lines 5-9. The resin outer layer is inherently formed of particles, which reads on fine particles that are dispersed in the resin outer layer. The fine particles inherently provide a surface roughness for the resin outer layer because every component of every substance in existence provides a surface roughness. See also, [0014]-[0016]. The resin outer layer is made of a ultraviolet-curable resin. See abstract, lines 8-9.

Claims 1, 4, 7, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. (US 6,096,395).

Hayashi et al. disclose a developing roller comprising a shaft (12), an elastic layer (14) formed on the outer periphery of the shaft (12), and at least one resin outer layer (16) formed on the outer periphery of the elastic layer (14). The resin outer layer is inherently formed of particles, which reads on fine particles that are dispersed in the resin outer layer.

Alternatively, protective layer (20) reads on the outer resin layer. The outer layer (20) is formed from 100 parts Nylon, which is a resin, and 5 parts ketjenblack, which is a conductive agent. See col. 11, lines 31-36.

Regarding claim 4, the thickness of the resin outer layer (20) has a thickness that reads on the claimed range. See col. 7, lines 28-40; col. 11, line 64.

Regarding claim 7, the fine particles inherently provide a surface roughness for the resin outer layer because every component of every substance in existence provides a surface roughness.

Regarding claim 12, the elastic layer is molded in a mold. See col. 4, lines 17-18. The resin outer layer is formed without grinding the surface of the elastic layer. See col. 3, lines 39-43.

Regarding claim 13, the developing roller is used in an image forming device.

Claims 1-5, 7, 8, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakada et al. (US 6,390,961).

Nakada et al. disclose a developing roller including a shaft (1), an elastic layer (2), and a resin outer layer (3). Fine particles, for example a charge controlling agent, col. 7, lines 3-4, are dispersed in the resin outer layer (3).

Also, dielectric particles are a conductive agent in the resin outer layer (3) in a range from 5 to 60 parts by weight per 100 parts of the synthetic resin, col. 6, lines 56-61, which reads on the claimed range with sufficient specificity.

Regarding claim 2, the fine particles have a diameter of 0.1 to 30 microns, col. 7, line 7, which reads on the claimed range.

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Regarding claim 3, the content of the fine particles is 5 to 20 parts by weight per 100 parts by weight of the synthetic resin, col. 7, lines 5-7.

Regarding claim 4, the thickness of the resin outer layer (3) is 5 to 100 microns, col. 7, lines 9-11.

Regarding claim 5, the mean particle diameter of the fine particles is 0.1 to 30 microns and the thickness of the resin outer layer is 5 to 100 microns, which provides ratio values to correspond to every possible value of the claimed range.

Regarding claims 7 and 8, alternatively, the particles that make up the resin layer also read on fine particles, and that layer can be formed of melamine resin, col. 3, lines 25-30, and the fine particles inherently provide a surface roughness for the resin outer layer because every component of every substance in existence provides a surface roughness.

Regarding claim 13, the developing roller is used in an image forming device.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over in Yamazaki et al. (US 2001/0036376) in view of Eguchi et al. (JP 63-307465).

Yamazaki et al. disclose the developing roller above, but do not disclose glassy carbon particles.

However, Eguchi et al. disclose amorphous non-oriented glassy carbon powder as a phenolic thermosetting resin to be carbonized and dispersed for forming the ferrite carrier, which is used to improve image quality. See abstract, lines 1-8.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the developing roller of Yamazaki et al. with the fine glassy carbon particles taught by Eguchi to reduce the variance of image quality. Abstract, lines 1-3.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 6, and 7 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

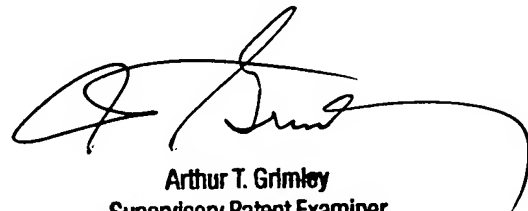
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rg



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